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PUBLIC UTILITIES
COMMISSION

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

-----In the Matter of-----) DOCKET NO. 2008-0273
)
PUBLIC UTILITIES COMMISSION)
)
Instituting a Proceeding to)
Investigate the Implementation of)
Feed-in Tariffs.)
_____)

THE DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT, AND TOURISM'S
COMMENTS ON PROPOSED FEED-IN TARIFFS FOR TIER 1 AND TIER 2

AND

CERTIFICATE OF SERVICE

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**THE DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT, AND TOURISM'S
COMMENTS ON PROPOSED FEED-IN TARIFFS FOR TIER 1 AND TIER 2**

The Department of Business, Economic Development, and Tourism ("DBEDT"), by and through its Director ("Director") in his capacity as the Energy Resources Coordinator ("ERC"), through the undersigned Deputy Attorney General, hereby submits to the Hawaii Public Utilities Commission ("Commission" or "PUC") its comments on the proposed Feed-in Tariffs for Tier 1 and Tier 2 filed in the above captioned docket by Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited, (collectively, the "HECO Companies"); and its comments on the joint proposal by Clean Energy Maui LLC and Zero Emissions Leasing LLC.

INTRODUCTION

By Order Initiating Investigation, filed on October 24, 2008, the Commission opened the above captioned docket to

examine the implementation of feed-in tariffs (FiTs) in the HECO Companies' service territories. On September 25, 2009, the Commission issued its decision and order setting forth the general principles for the design and implementation of the initial FiTs program for the HECO Companies. The general design principles of the initial FiT specified the eligible renewable resources and technologies, project sizes, program caps, determination of the FiT rates including the cost basis and rate structure; other eligibility requirements, and non-rate terms and conditions.

The Commission's Order structured the eligible project sizes into three tiers and encouraged the Parties to focus on resolving the issues in the smaller size tiers (i.e., Tiers 1 & 2) to facilitate the immediate implementation of FiTs in these two tiers. Accordingly, the Commission's Order Setting Schedule (for Phase 2 of the docket), issued on October 29, 2009, provided for technical sessions and an informal discovery process among the Parties on proposed drafts of FiTs Tariffs for the smaller size tiers, as well as the filing of the proposed FiTs Tariffs for Tier 1 and Tier 2 by the HECO Companies pursuant to the Commission's Order that the "HECO Companies are

responsible for developing the initial FiT rates in collaboration with the parties..."¹

The HECO Companies filed their proposed "SCHEDULE FIT TIER 1 AND TIER 2" on January 7, 2010 pursuant to the procedural schedule established by the October 29, 2009 Commission Order. DBEDT's comments on HECO's proposal are provided below, including DBEDT's proposed modifications to the HECO Companies' proposed tariffs for the Commission's consideration. DBEDT also provides herewith its comments on the Clean Energy Maui LLC and Zero Emissions Leasing LLC's joint proposal on FiT rates filed on January 7, 2010.

**SUMMARY OF THE HECO COMPANIES' PROPOSED
SCHEDULE FIT TIER 1 and TIER 2**

A. Proposed Rates

Pursuant to the Commission's Order on general design principles, the HECO Companies' proposed FiTs rates for Tier 1 and Tier 2 are based on Oahu rates and are the same for all HECO Companies (HECO, HELCO, MECO) rather than differentiated by island. The proposed FiT rates are summarized as follows:

<u>Tier 1:</u>	<u>Based on 35% Tax Credit²</u>	<u>Based on 24.5% Tax Refund³</u>
PV:	21.8 ¢/kWh	27.4 ¢/kWh
CSP:	26.9 ¢/kWh	33.1 ¢/kWh
On-shore Wind	16.1 ¢/kWh	N/A
In-line Hydro	21.3 ¢/kWh	N/A

¹ Docket No. 2008-0273, Commission's Decision and Order, September 25, 2009. p. 87.

² Section 235-12.5, Hawaii Revised Statutes (HRS).

³ Section 235-12.5(g), HRS.

Tier 2:

PV:	18.9 ¢/kWh	23.8 ¢/kWh
CSP:	25.4 ¢/kWh	27.5 ¢/kWh
On-shore Wind	13.8 ¢/kWh	N/A
In-line Hydro	18.9 ¢/kWh	N/A

The HECO Companies filed their proposed FiT rates for Tier 1 and Tier 2 summarized above, but did not file the supporting cost data and assumptions, workpapers and the model used to determine the rates. Rather, the determination of HECO's proposed FiT rates for each resource or technology and tier size were briefly described in HECO's transmittal letter submitting the proposed FiT Tier 1 and Tier 2 tariffs. According to HECO's brief description of its methodology, the utility retained two consultants (E3 and Miremish Consulting) to assist in developing the initial FiT rates, and generally followed the following process:

- 1) Reviewed available information on installed Hawaii projects within each technology and tier size.
- 2) Benchmarked mainland cost of generation for all technologies using public sources, manufacturer and developers' quotes, and adjusted for Hawaii premiums for shipping, labor, and costs.
- 3) Used a publicly available "levelized cost of energy" (LCOE) model developed by Black & Veatch which E3 modified to reflect Hawaii conditions. The modifications included

the incorporation of the Hawaii tax credits, Hawaii and federal taxes, as well as assumptions relating to insurance, land costs, capacity factors, and degradation factors.

- 4) HECO's description indicated using data from the following sources:

- a) Sources of data inputs for PV: Lawrence Berkeley National Lab (LBNL); California Solar Initiative, program database; KEMA cost of generation study; reports and analyses on the decrease in PV module prices in 2009; manufacturers' quotes; independent engineers' estimates and assessments; NREL's PVWatts version 1 calculator; Hawaii solar schools program; REIT PV roof rental program quotations; publicly-announced roof rental projects; Southern California Edison's roof rental program; and HECO IRP-3.
- b) Sources of data inputs for On-Shore Wind: manufacturers' quotes (Bergey, Southwest, Ventera, Abundant RE, Aerostar, Jacobs, WindEnergy Solutions, and Northern Power); NREL's 2008 Mid-scale Wind Study; NREL Bergey study; and the 2009 KEMA Cost of Generation Survey developed for the California Energy Commission.
- c) Sources of data inputs for In-Line Hydro: 2006 Micro Hydro Guide; KEMA's 2009 CEC cost of generation survey;

a 2002 study developed for the Hawaii County Water Department; and the costs of installed in-line hydro units in Hawaii.

d) Sources of data inputs for Concentrated Solar (CSP):

Mojave level solar insolation; 1992 Hawaii Solar Study; a Concentrating Photovoltaic (CPV) study in Los Angeles; a 2006 Black & Veatch report for NREL; a 2007 Navigant report for Arizona's Solar Electric Roadmap; State Department of Hawaiian Home Lands (for land costs); and other known contracts.

5) Financing Assumptions provided in the description:

- a) Cost of equity = 11%;
- b) Cost of debt = 9%;
- c) Term of debt = 20 years;
- d) Percent of debt = 35% of capital structure.

6) Based on the above information on sources of data and financing assumptions and using the Black & Veatch LCOE model, E3 came up with the following ranges of "Capital Costs" for each technology and tier size:

- a) Tier 1 PV: \$5.76/watt dc - \$7.04/watt dc.
- b) Tier 2 PV: \$5.13/watt dc - \$6.31/watt dc.
- c) Tier 1 On-shore Wind: not provided.
- d) Tier 2 On-shore Wind: not provided.
- e) Tier 1 In-line Hydro: not provided.

- f) Tier 2 In-line Hydro: not provided.
 - g) Tier 1 Concentrated Solar: not provided.
 - h) Tier 2 Concentrated Solar: not provided.
- 7) The methodology description then indicated the ranges of LCOE for each technology and tier size. HECO's proposed FiT rates for each technology or resource for each tier are simply the averages of the low and high range of these LCOE ranges.

DBEDT would like to note that during the settlement discussions, the HECO Companies provided the LCOE model (EXCEL file) with data inputs used to determine the HECO Companies' draft proposed FiT rates that it shared with the Parties, which are different from the proposed FiT rates filed by the HECO Companies on January 7, 2010. Further, the LCOE model provided by HECO did not identify the sources of the data inputs used in the model.

DBEDT'S COMMENTS ON HECO'S PROPOSED TIER 1 AND TIER 2 FIT RATES

The FiT rates are the most critical components of the FiT tariffs. The success of the initial FiT program in achieving its intent will largely depend on the FiT rates. The Commission's Order on the general principles for the design of the FiT rates provided clear guidance on the determination of the FiT rates. The Order required that FiT pricing should cover

project costs and provide a reasonable return for projects on Oahu.⁴ While the preferred cost data is the cost of Hawaii-based or Hawaii-specific projects, to the extent that Hawaii-specific cost data is not available, secondary data sources for industry costs, adjusted to reflect the Hawaii market, may be utilized. The Commission Order provided that in evaluating the justness and reasonableness of proposed FiT rates, the Commission will look most favorably on those based on Hawaii-specific cost and performance data, followed by mainland cost and performance data.⁵

The Commission Order also encourages the use of existing Hawaii PPAs and accepted competitive bids to evaluate the reasonableness of cost-based rates, further indicating that the utility already possesses information about the rates for existing PPAs and accepted competitive bids. It further stated that in addition to having negotiated existing PPAs, the utility should be familiar with typical interconnection and Interconnection Requirements Study (IRS) costs. The Commission, therefore, ordered the utilities to be responsible for developing the FiT rates in collaboration with the Parties.⁶

⁴ Docket No. 2008-0273, Commission Order, September 25, 2009, p. 79

⁵ Ibid. p. 84.

⁶ Ibid. p. 84.

Given the Commission's guidance on FiT pricing, DBEDT provides the following comments on the HECO Companies' proposed FiT rates for Tier 1 and Tier 2:

- 1) DBEDT is unable to ascertain the reasonableness of the HECO Companies proposed FiT rates for Tier 1 and Tier 2 due to the absence of supporting data and workpapers used in the development of such proposed FiT rates. Without the supporting data and workpapers, it is not possible for DBEDT or for the Commission to determine what exact data and/or assumptions were used for the various cost components in the LCOE model to determine the FiT rates for each technology and tier, much less determine whether the data inputs used are reasonable. Specifically, HECO did not provide the installed costs for each technology in each tier that it used to determine the proposed FiT rates, nor the costs included in the installed costs as well as the sources of the data.

DBEDT recommends that the Commission require the HECO Companies to provide the data inputs as well as the data sources used in the model to determine the proposed FiT rates for each technology in each tier, including any Hawaii-specific costs and performance data from existing negotiated PPAs and accepted

competitive bids, to assist the Commission in determining whether the proposed FiT rates are just and reasonable. Knowing the data inputs and the data sources used in the development of the initial FiT rates, as well as Hawaii-specific information, is also critical and helpful in the future updates and evaluation of the FiT rates, as the Commission and other Parties will be able to monitor any significant changes to the data inputs and determine the impact on the FiT rates.

- 2) As noted earlier, during the settlement meetings, the HECO Companies shared with the Parties the LCOE model with data inputs that they used in their draft proposed FiT rates. The draft FiT rates were different from the proposed FiT rates that were filed by the HECO Companies. Such differences may have been due to some of the Parties providing data inputs to the HECO's Consultant (E3) after the settlement meeting. In particular, with inputs from and discussions with the Solar Alliance, HECO modified their proposed FiT rates for PV in Tier 2. DBEDT would like to note that there were no objections or opposition from any party to the Solar Alliance's suggestions.

- 3) Based on the brief description of the methodology provided in HECO's transmittal letter, it appears that HECO assumed an 11% cost of equity, 9% debt rate, and 35% debt percentage of the total capital structure for all the technologies in each tier. Absent information from the developers, and the fact that none of the developers participating in the docket appear to argue against or object to these assumptions during the settlement discussions, DBEDT supports using these assumptions for the initial FiT rates.
- 4) DBEDT agrees with and supports the HECO Companies' proposal to provide two sets of FiT rates for PV and CSP to reflect the 35% solar tax credit as well as the monetization of the solar tax credit refund provided in HRS Section 235-12.5(g).
- 5) The Commission's Order requires that the initial FiT rates should cover the costs of a "typical or average project that is reasonably cost-effective."⁷ In reviewing the brief description of HECO's methodology, it is not clear how HECO determined the "typical or average project" for each technology in each tier. For instance, for PV, HECO indicated that the "most important sensitivity for determining the LCOE is the

⁷Docket No. 2008-0273, Commission's Order, September 25, 2009. p. 62.

installed cost of the equipment.”⁸ HECO observed that the installed costs decreased as the system sizes increased. Thus, HECO used the high end of the project sizes in each tier (i.e., 20 kW for Tier 1, and 500 kW for Tier 2) to set the FiT rates for PV.

On the other hand, the proposed FiT rates for On-shore Wind, In-Line Hydro, and Concentrated Solar were based on what HECO determines as the “more cost effective projects”, which appear to be determined on the capacity factors assumed in the model rather than on the project’s installed cost, as in the PV projects. It appears that HECO’s determination of a “typical and average project that is reasonably cost-effective” is based mainly on the “lowest cost” project as determined by HECO by adjusting any data input that will provide the “lowest cost” project. DBEDT agrees with the Commission’s Order in Docket No. 2008-0091 issued on August 8, 2008, in which the Commission stated that the price paid for non-fossil fuel generated electricity should be “fair”.⁹ DBEDT, however, does not believe that HECO has provided evidence that using the lowest cost projects as

⁸ Docket No. 2008-0273, HECO Transmittal on Schedule Fit Tier 1 and Tier 2 Tariff and Agreement. January 7, 2010. p. 7.

⁹ Ibid. p. 62.

determined by HECO, will result in "fair" FiT rates to pay non-fossil fuel generated power procured through the FiT tariffs.

- 6) The HECO Companies' proposed FiT rates for Tier 1 and Tier 2 do not appear to be compliant with the Commission's order relating to the inclusion of interconnection costs. The Commission's Order requires that the FiT rates should cover the typical interconnection costs that are the responsibilities of developers. The Order also requires that the interconnection costs included in the FiT rates should be clearly delineated in the tariff and limited to the typical interconnection costs borne by developers. The Order further provides that, to the extent applicable, the Parties are to use the HECO Companies' Rule 14H for guidance in establishing the interconnection costs for projects in Tier 1 and Tier 2.¹⁰

The HECO Companies' proposed FiT rates appear to be based on non-Hawaii interconnection cost data which may not be fair or reasonable as they may not reflect the same interconnection requirements and costs that are normally borne by developers in Hawaii, as

¹⁰ Ibid. pp. 67-68.

required by the HECO Companies' Rule 14H. On page 8 of its transmittal letter, HECO stated that the "[D]evelopment costs, permitting costs and interconnection costs for Tier 2 (On-shore Wind) were taken from quoted installation costs from Northern Power and WindEnergy Solutions for their 100 kW and 80 kW systems respectively." DBEDT believes that HECO must have and is familiar with the interconnection costs for projects interconnecting to its grid, and should use HECO-specific interconnection costs in developing the proposed FiT rates.

- 7) The HECO Companies' proposed Interconnection Requirements provided in APPENDIX B to the proposed SCHEDULE FIT TIER 1 and TIER 2 TARIFF, provide that the Seller pay for the Interconnection Requirements Study (IRS) costs and all the required interconnection facilities - both the Seller-Owned and the Company-Owned Interconnection Facilities. These interconnection costs, if paid for by the Seller, must be considered part of the project costs and should therefore be covered and included in the FiT rates. Absent the cost data and sources used by HECO, DBEDT is unable to ascertain what interconnection costs are included in the HECO Companies' proposed FiT rates.

DBEDT recommends that the Commission require the HECO Companies to provide the estimated interconnection costs for "typical and average projects" for each project in each tier that should be included in the determination of the FiT rates.

**DBEDT's COMMENTS ON THE NON-RATE TERMS IN HECO's PROPOSED
SCHEDULE FIT TIER 1 AND TIER 2 TARIFF**

- 1) Section C of the proposed SCHEDULE FIT TIER 1 AND TIER 2 TARIFF relating to Seller Participation is not consistent with the caps established by the Commission's Order, which sets the FiT's initial caps to equal 5% of the 2008 peak demand for each of the HECO companies.¹¹ In contrast, the referenced section in HECO's proposed SCHEDULE FIT TIER 1 AND TIER 2 TARIFF provides that "... this Schedule FIT shall be closed to new Sellers once Schedule FIT Contract Capacity reaches applicable system limits as determined through the Company's reliability standards and other mechanisms..." (Underscore added). This provision appears to ignore the initial FiT caps established by the Commission Order, and instead asserts that the system limits will be established by

¹¹ Ibid. pp. 55-57.

the Company. DBEDT finds this provision in HECO's proposed SCHEDULE FIT TIER 1 AND TIER 2 TARIFF not compliant with the Commission's Order and recommends that it be deleted in the FiT tariff that will be adopted and approved by the Commission. Instead, DBEDT recommends that the Commission use the provision on project caps provided in item (h) below, which is consistent with the Commission's Order.

- 2) DBEDT recommends that the following non-rate terms consistent with the Commission's Order must be included in the initial FiT tariff:
 - a) This Schedule shall not apply to any Eligible Renewable Energy Generating Facilities owned by the Company or its affiliates.
 - b) This Schedule shall not apply to an existing Eligible Renewable Energy Generating Facility currently selling power to the Company under a purchase power agreement with the Company. Such Eligible Renewable Energy Generating Facility shall not be eligible to convert to the FiT Program and sell power to the Company under this Schedule.
 - c) This Schedule shall not apply to an existing Eligible Renewable Energy Generating Facility currently selling power to the Company under a Schedule Q contract with the Company. Such Eligible Renewable Energy Generating Facility will not be eligible to convert to the FiT Program and sell power to the Company under this Schedule.
 - d) Customers currently receiving service under the Net Energy Metering Program (NEM Program) or owners of new Eligible Renewable Energy

Generating Facilities that are also eligible under the NEM Program will have a one-time choice to opt to receive service under the NEM Program or to sell power to the Company under this Schedule.

- e) Customers receiving service under the NEM Program cannot sell excess energy production to the Company under this Schedule. If a customer in the NEM Program seeks to install additional generation capacity at the same site as an existing NEM system, but wishes to keep the existing system under the NEM Program and sell the power from the additional generation capacity to the Company under this Schedule, the additional generation capacity must be separately metered, and provided that such additional generating facility is an Eligible Renewable Energy Generating Facility under this Schedule.
- f) The Eligible Renewable Energy Generating Facilities with capacity sizes greater than 20 kW (Tier 2 and Tier 3 projects) must provide a written notice to the Company and to the Commission at least three months before terminating operation for reasons other than force majeure events. Failure to provide such written notice shall be subject to a penalty equal to the revenues received under this Schedule during the last three months prior to terminating operation, due and payable to the Company upon receipt of billing from the Company.
- g) Any Eligible Renewable Energy Generating Facility selling power to the Company under this Schedule must sell all the electricity they produce above any electricity produced for the facility owner's own energy consumption, to the Company for the entire contract term. A FiT Program participant cannot sell electricity to third parties or renegotiate with the Company for any changes to the FiT Agreement's Terms and Conditions during the contract term.
- h) The Company's total purchases of power under this Schedule is limited to a total capacity of _____ kilowatts (_____ MW), or 5% of the Company's 2008

system peak load. This cap is based on the nameplate capacity rating of the Eligible Renewable Energy Generating Facilities in the FiT Program and will apply for the FiT Program's initial two years prior to the first periodic evaluation of the FiT Program. Of the total power purchases under the FiT Program, _____ kW or 5% is reserved for power purchases from qualifying FiT projects with capacity sizes under 20 kW (Tier 1 projects).

- i) A generating facility utilizing RPS-eligible resources or technologies other than those eligible under this Schedule with nameplate rating capacity sizes not exceeding the lesser of 5 MW or 1% of the Company's 2008 system peak load, may apply in the FiT Program to sell power to the Company under the Baseline FiT Rate set forth in this Schedule, and subject to all applicable Terms and Conditions of this Schedule.
- j) This Schedule may apply to incremental capacity addition to an existing Eligible Renewable Energy Generating Facility under the FiT Program, provided that such incremental capacity addition is separately metered as a stand-alone project and is subject to the eligibility requirements and terms and conditions of this Schedule.
- k) All Eligible Renewable Energy Generating Facilities with capacity sizes greater than 20 kW (Tier 2 and Tier 3 projects) shall file the following information with the Public Utilities Commission under protective order, within 30 days after the facility commences operation:
 - 1) The cost of project design, permitting, and construction costs, including labor and materials costs;
 - 2) Financing or capital cost;
 - 3) Land cost or actual cost of site acquisition;
 - 4) Interconnection and metering costs incurred by the project developer;
 - 5) Other project costs incurred in developing and constructing the project;

- 6) Tax credits, rebates, incentives received and applied to the project development cost;
 - 7) Maintenance and operation labor and non-labor costs;
 - 8) Fuel supply costs (for biomass and biogas projects);
 - 9) Monthly land or site leases; and
 - 10) Other operations and maintenance costs.
- 1) All Eligible Renewable Energy Generating Facilities with capacity sizes greater than 20 kW (Tier 2 and Tier 3 projects) must file an annual report with the Public Utilities Commission no later than January 31 of each year, containing the following information:
- a) Annual electricity production in kilowatt-hours (kWh); and
 - b) Annual Operating costs, including operations and maintenance costs, lease expense, insurance, and property taxes.
- m) At the end of the contract term, the utility will have no obligation to purchase power from the Eligible Renewable Energy Generating Facility. To exercise its option to purchase, the Company must provide a written notice to the Facility owner at least six months before the end of the contract term.
- n) If an Eligible Renewable Energy Generating Facility is sited in a customer location receiving service from the Company, the energy delivered to the customer by the Company will be metered separately from the energy delivered to the Company by the Eligible Renewable Energy Generating Facility, either by use of multiple meters or a meter capable of separately recording the inflow and outflow of electricity. Energy delivered to the customer by the Company shall be billed under the Company's applicable rate schedule.
- o) The Company, at its expense, shall install meter(s) to record the flow of electric power in each direction. The customer shall, at its expense, provide, install and maintain all conductors, service switches, fuses, meter sockets, meter

instrument transformer housing and mountings, switchboard meter test buses, meter panels and similar devices required for service connection and meter installations on the customer's premises in accordance with the Company's Rule 14, Section A.2.

- 3) Section L(2) and Section L(3) of the HECO Companies' proposed SCHEDULE FIT TIER 1 AND TIER 2 TARIFF includes a refundable Reservation Fee and Security Deposit, respectively. DBEDT recommends that these sections should spell out the conditions under which these fees may be forfeited by the Seller. These sections should also indicate whether or not these fees are refunded with interest, as well as the interest rate that will be applied.
- 4) DBEDT recommends that Section 2(c) of the proposed SCHEDULE FIT STANDARD AGREEMENT FOR TIER 1 AND TIER 2, relating to billing and payment, should be modified to spell out the "Company's provisions and processes" rather than merely alluding to those which "the Company will advise the Seller of at the time of execution of this Agreement." Alternatively, the billing and payment procedure may be spelled out in the non-rate terms and conditions of the proposed SCHEDULE FIT TIER 1 AND TIER 2 TARIFF, and simply referred to in the referenced Section 2(c) of the Standard Agreement.

- 5) To ensure clarity that the payment for energy purchased by the Company via the proposed SCHEDULE FIT TIER 1 AND TIER 2 TARIFF is based on metered data, DBEDT recommends that the second sentence in Section 2(d) of the Standard Agreement be changed to read as follows:
- "The Company shall meter the amount of energy purchased by the Company and shall provide a statement of the metered kilowatt-hour purchased and the payment for energy purchased from the Seller within thirty (30) calendar days from the end of the billing period".*
- 6) Section 6(b) of the proposed SCHEDULE FIT STANDARD AGREEMENT FOR TIER 1 AND TIER 2 appears to link the FiT rates with HECO's fossil fuel-based avoided costs, and therefore, violates Section 269-27.2(c), HRS, (Act 050, SLH 2009). DBEDT objects to this provision and strongly recommends that it be excluded from any FiT Tariff Agreement that may be adopted and approved by the Commission for the following reasons:
- a) HECO's proposed provision violates the Hawaii statute that delinks the determination of a just and reasonable purchase power rate for non-fossil fuel-generated electricity from the utility's avoided cost.

- b) HECO's proposed provision is not consistent with the Commission's Order on general principles;
 - c) HECO's proposed provision will create uncertainty to the Seller's revenue stream;
 - d) HECO's proposed provision does not specify how the Company will determine the cost it would incur if it did not make the purchases from the Seller;
 - e) HECO's proposed provision does not provide for a verification process for its cost estimate by either the Seller or the Commission;
 - f) HECO's proposed provision is contrary to the intent and goal of the FiT program to promote and accelerate the use and development of renewable energy, and will instead perpetuate the utility's dependence on imported fossil fuel.
- 7) Section 7 of the proposed SCHEDULE FIT STANDARD AGREEMENT FOR TIER 1 AND TIER 2 effectively provides that the Seller will pay for the installed cost of the meter as well as the cost of maintenance and testing. If these costs are paid for by the Seller, they must be included in the project costs and ongoing maintenance costs and should be covered by the FiT rates. Absent the data inputs used by HECO, DBEDT is unable to

ascertain the meter costs included and covered in HECO's proposed FiT rates for Tier 1 and Tier 2.

DBEDT also notes that if these costs are paid for by the Seller, their accounting treatment for rate case and ratemaking purposes (i.e., installed costs of these meters are not included in the utility's ratebase; the testing and maintenance costs are not included in the test-year O&M expenses) must be well defined to ensure that the utility is not recovering the same costs twice and does not over-compensate the utilities for these costs. DBEDT further notes that requiring the Seller to pay for the meter costs is not compliant with the Company's Rule 14, Section A.2, when the Seller is also receiving electricity service from the Company.

- 8) DBEDT recommends that the documents referenced in Section 8 of the proposed SCHEDULE FIT STANDARD AGREEMENT FOR TIER 1 AND TIER 2 should be made available to the Seller either as attachments to the Agreement or posted on the HECO Companies' website in order to ensure transparency, consistency, and clarity in the Company's procedures.
- 9) DBEDT would like to understand HECO's basis as to why the "Commercial Operation Date" of a Seller's facility is established by the Commission as indicated in

Section 11(b) of the proposed SCHEDULE FIT STANDARD AGREEMENT FOR TIER 1 AND TIER 2.

- 10) Section 13 of the proposed SCHEDULE FIT STANDARD AGREEMENT FOR TIER 1 AND TIER 2 specifies the insurance requirements that the Seller must maintain at its own expense. DBEDT is uncertain as to whether the insurance costs assumed in the HECO Companies' proposed FiT rates are consistent with the insurance amounts required in this provision of the Standard Agreement. DBEDT recommends that the Commission require the HECO Companies to provide evidence that they are consistent to ensure fair and reasonable FiT rates.

**DBEDT'S COMMENTS ON THE INTERCONNECTION REQUIREMENTS
PROVIDED IN APPENDIX B TO HECO'S PROPOSED SCHEDULE FIT**

- 1) Section 1.b. of APPENDIX B requires the Seller to pay a non-refundable contribution for the Company's investment in Company-owned Interconnection Facilities, in addition to paying for the Seller-owned interconnection facilities required in Section 2 of APPENDIX B. Additionally, Section 3 of APPENDIX B-2 requires the Seller to pay the Company for the monthly costs of maintaining, operating, and testing the Company-Owned Interconnection Facilities. These

provisions effectively require the Seller to pay for the total installed costs of all the required interconnection facilities (both the Seller-owned Facilities and the Company-Owned Facilities), as well as the total operation, maintenance, and testing of these facilities. DBEDT views these requirements as inconsistent with the Commission's Order on general principles.

As mentioned earlier, absent the data inputs used by HECO, it is difficult to ascertain whether these costs are appropriately included and covered in HECO's proposed FiT Rates as required by the Commission's Order on general design principles for the initial FiT rates. DBEDT recommends that the Commission require the HECO Companies to submit the detailed estimates of these interconnection costs that are borne by the Seller, and the interconnection costs that are assumed or included in the HECO Companies' proposed FiT rates for Tier 1 and Tier 2.

DBEDT views the HECO requirement for the Seller to pay for the total installed costs of the required interconnection facilities (both the Company-owned and Seller-owned facilities) as well as the maintenance and testing costs, as not compliant with the Commission's

Order for the Parties to reach an agreement on the allocation of these costs.¹² This requirement is provided in the HECO Companies' Rule 14H and the Company did not include any changes to this provision in their proposed modifications to Rule 14H.

DBEDT understands that the HECO Companies filed their proposed modifications to Rule 14H on January 7, 2010, pursuant to Rule 6-61-111 of the Commission's Rules of Practice and Procedure, Title 6, Chapter 61, Hawaii Administrative Rules (HAR). Since the above referenced provisions in APPENDIX B and APPENDIX B-2 to the proposed SCHEDULE FIT STANDARD AGREEMENT FOR TIER 1 AND TIER 2 are based on Rule 14H, and could have significant impact on the determination of the FiT rates, DBEDT recommends that the HECO filing on the revisions to Rule 14H be made part of this docket. By incorporating the HECO Companies' Rule 14H filing in this docket rather than initiating a separate docket to review it, the Commission's review, evaluation, and approval of the revised Rule 14H will facilitate the Commission's deliberations and evaluation of the proposed FiT rates in this docket.

¹² Docket No. 2008-0273, Commission Order, September 25, 2009. pp. 67-68.

- 2) APPENDIX B-1 to HECO's proposed SCHEDULE FIT TIER 1 AND TIER 2 TARIFF relating to the DESCRIPTION OF FACILITY identifies the required generator information. One such information is the "[A]nnual Energy Exported through Point of Common Coupling". DBEDT recommends that a definition of the "Point of Common Coupling" be included in APPENDIX A relating to DEFINITIONS.

**DBEDT's COMMENTS ON THE SCHEDULE FIT PROPOSED BY
CLEAN ENERGY MAUI LLC AND ZERO EMISSIONS LEASING LLC**

Clean Energy Maui LLC and Zero Emissions Leasing LLC filed a joint proposal for Tier 1 and Tier 2 Tariffs for the HECO Companies. Except for the FiT rates for In-line Hydro, the Clean Energy Maui/Zero Emissions proposed FiT rates are significantly higher than the HECO Companies' proposal, as summarized below:


<u>Tier 1:</u>	<u>HECO Companies</u>	<u>Clean Maui/ Zero Emissions</u>	<u>Percent Difference</u>
PV:	21.8 ¢/kWh	25.4 ¢/kWh	16.5%
CSP:	26.9 ¢/kWh	47.7 ¢/kWh	77.3%
On-shore Wind	16.1 ¢/kWh	33.4 ¢/kWh	107.5%
In-line Hydro	21.3 ¢/kWh	13.2 ¢/kWh	(38.0%)

<u>Tier 2:</u>			
PV:	18.9 ¢/kWh	22.74 ¢/kWh	20.3%
CSP:	25.4 ¢/kWh	48.35 ¢/kWh	90.4%
On-shore Wind	13.8 ¢/kWh	24.80 ¢/kWh	79.7%
In-line Hydro	18.9 ¢/kWh	7.06 ¢/kWh	(62.6%)

Clean Energy Maui and Zero Emissions did not provide the supporting data and methodology that they used to determine their proposed FiT rates. Neither party discussed its proposed

FiT rates or the basis of its proposal during the settlement meetings. DBEDT believes that these two parties' proposed FiT rates are unreasonable and not in the public interest.

DATED: Honolulu, Hawaii, January 21, 2010.



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Certificate of Service

I hereby certify that I have served a copy of the Department of Business, Economic Development, and Tourism's Comments on the Proposed Fit Tier 1 and Tier 2 Tariffs in PUC Docket Number 2008-0273, by electronic transmission on the date of signature to each of the parties listed below.

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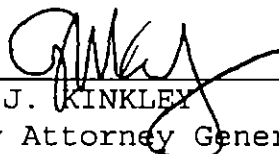
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